

## **The Development of Students' Learning Achievements and Learning Behaviors through Participatory Learning Method**

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### **Abstract**

*The objectives of this research were: 1) to compare the students' learning achievements before and after the implementation of the participatory learning method; 2) to study the students' learning behaviors using the participatory learning method; and 3) to evaluate students' satisfaction towards the participatory learning method to help develop students' learning achievements and learning behaviors. The results showed that the students' learning achievements before using the participatory learning method was rated at the level of 16.67. After the implementation of the participatory learning method, the students' learning achievements were rated at a significantly high level of 20.73. Moreover, the components of the participatory learning method including a mind map, a case study, and games yielded satisfactory effect on students' learning behaviors especially in the aspect of responsibilities, which was rated at the highest level of 4.66. The students' learning behaviors development as a whole was rated at a high level of 4.46.*

*In part of evaluation of students' satisfaction towards the participatory learning method to develop students' learning behaviors and learning achievements, it was found that the aspect of teaching integration was rated at the highest level of 4.40. In overall, the results assessment was rated at the high level of 4.31.*

**Keywords: Participatory Learning, Learning Achievements, Learning Behaviors**

## 1. Introduction

Education is an important foundation for human development and education development. In terms of education development, teaching development is a way to motivate students to study and participate in the teaching and learning processes. Thus, the participatory learning method is the teaching method giving a focus on individual students and their learning potentials, requiring students' complete participation in the teaching and learning processes (Academic Department, 1999). In addition, Tongkaew, T. (2003) stated that the participatory learning method is an efficient approach suitable to current teaching situations in which teachers employ a participatory learning method with the main focus on acquiring new information from various knowledge resources, learners participation in learning situations and integration their prior knowledge to their current learning situations, giving students a chance to present their information to their peers to check and confirm their existing knowledge. In tertiary level, it is very important for students to keep learning. Thus, traditional teaching may not require a complete participation from students, causing the lack of complete understanding of what being taught and yielding the unsatisfactory learning achievements. Without the participatory learning method, teachers may not well perceive if students understand what they have been taught or not and, to what extent students develop themselves from learning. These resulted from incomplete knowledge gained in a classroom. The researcher conducted a survey with 30 3<sup>rd</sup> year students who enrolled in Electronic Commerce Course using questionnaires to elicit about student's perceptions about the participatory learning method on the development of learning achievements and learning behaviors. The data were analyzed using percentile and average scores and the results showed 80% of students reported nonconcurrent responses to the questionnaires. As such, the researcher proposed to conduct a research to compare students' learning achievements and learning behaviors before and after using the participatory learning method and determine the levels of students' satisfaction towards this learning method.

At present, many researchers have employed the participatory learning method in classes to develop students' learning achievements and learning behaviors. Pothong, S. (2013) conducted a research on the effect of the participatory learning method of group learning on reading for main ideas of Thai language and learning group of 3<sup>rd</sup> year primary school students. Siraphatthada, Y. (2010) investigated the development of the students' learning behaviors and learning achievements in Marketing Principles Course using the participatory learning method. Sukcheua S. *et al.* (2009) revealed the results of the study on local curriculum about chili using learning resources in the community with the emphasis on participatory learning innovations. Rangseedham S. (2011) studied the development of CAI integrating the participatory learning method and buddy learning via computer network in Information Technology for Management Course. Tanabutr P. (2004) investigated the development of the participatory learning method based on an informal education system for 1996 Vocational Certificate.

This research paper employed the participatory learning method with various components including mind mapping, a case study, and games to conduct participatory learning, compare students' learning achievements and students' learning behaviors and after using participatory learning so as to determine students' learning achievements as well as

students' learning behaviors. The researcher used these findings to further develop the participatory learning method in other course.

## 2. Purposes of the Study

The purposes of this study are as follows.

1. To compare the students' learning achievements before and after the intervention of the participatory learning method.
2. To compare the students' learning behaviors before and after using the participatory learning method.
3. To investigate the students' satisfaction levels towards the participatory learning method.

## 4. Method

### 3.1 Conceptual Framework

The conceptual framework of this study to compare the learning achievements and learning behaviors of students enrolling in Electronic Commerce before and after using the participatory learning method is as follows.

**Figure 1 Conceptual Framework**



### 3.2 Research Procedures

The study on the Development of Students' Learning Achievements and Learning Behaviors through the Participatory Learning Method is an action research comprising the follows 3 steps

#### 1. Information Collection for the Study

This stage is collecting and studying information in terms of students' learning achievements and learning behaviors from related reading materials and related research articles to create a conceptual framework to check the correction of information for the participatory learning method and find the most effective participatory learning method suitable to students in Electronic Commerce Course.

#### 2. Pretest and Trying Out

This stage is administering the one group pretest developed by the researcher to 30 3<sup>rd</sup> year 30 students to obtain the data to be analyzed and summarized and the components of

participatory learning methods: mind mapping, a case study, and games were tried out and revised.

### 3. Posttest and Satisfaction Evaluation

This stage is administering the one group posttest developed by the researcher to 30 3<sup>rd</sup> year students to determine students' learning achievements after using the participatory learning method and to evaluate the students' satisfaction towards the participatory learning method.

## 3.3 Scope of the Study

### 3.3.1 Samples and Sampling Method

The samples were 30 3<sup>rd</sup> year Business Computer students enrolling in Electronic Commerce Course at Thepsatri Rajabhat University, Takhli Campus in semester 2 of the academic year of 2014, drawn by purposive sampling method.

### 3.3.2 Scope of the Data

1. Data regarding participatory learning.
2. Data regarding the development of students' learning achievements and learning behaviors.
3. Data regarding students' satisfaction towards the participatory learning method.

### 3.3.3 Scope of the Samples

1. The samples used to determine the learning achievements before and after the intervention of the participatory learning method.
2. The samples used to observe the learning behaviors.
3. The samples used to determine satisfaction towards the participatory learning method.

### 3.3.4 Research Instruments

The instruments used in this study are accordingly:

1. Achievement Test (One Group, Pretest and Posttest)
2. Learning Behavioral Observation Check List
3. Participatory Learning Methods with 3 components: Mind Mapping, A Case Study, and Games
4. Satisfaction Evaluation Questionnaires

### 3.3.5 Scope of Technology

To investigate the students' learning behaviors, students' learning achievements before and after using the participatory learning, and students' satisfaction towards the participatory learning method, the Statistical Package for Social Sciences Version 17.00 was employed to analyze data using average scores, mean, standard deviation, percentile, and t-test.

### 3.3.6 Data Analysis

The data collected were analyzed using descriptive statistics including arithmetic mean, mean, percentile, standard deviation to investigate the students' learning behaviors before and after the intervention of the participatory learning method, and to investigate students' satisfaction towards the participatory learning method. Similarly T –test was used to investigate students' learning achievements before and after the intervention of the participatory learning method.

## 4. Results

The data collected from 30 3<sup>rd</sup> year students enrolling in Electronic Commerce were analyzed and the results were according to the following parts.

### Part I. Students' Learning Achievement

In terms term of students' learning achievements, the study revealed that students' learning achievements before the intervention of the participatory learning method was rated at the level of 16.67, and after the intervention at 20.73.

**Table 1. A Comparison of Students' Learning Achievement before and after the Intervention of the Participatory Learning Method**

Test	Total Scores	$\bar{x}$	S.D.	t –test
Pre-test	30	16.67	1.78	- 21.249
Post-test	30	20.73	1.76	

### Part II. Students' Learning Behaviors

In terms of students' learning behaviors, the study manifested the students' learning behaviors after using participatory learning method in the aspect of responsibility was rated at the level of 4.66, the aspect of kindness at the level of 4.56, and in the aspect of enthusiasm at the level of 4.46, respectively.

**Table 2. Students' Learning Behaviors the Participatory, Learning Method**

Aspects of Behaviors	$\bar{x}$	S.D.
Responsibility	4.66	0.47
Self-disciplines	4.43	0.50
Tolerance	4.23	0.43
Enthusiasm	4.46	0.50
Kindness	4.56	0.50
Overall Behavioral Development	<b>4.46</b>	<b>0.48</b>

### Part III. Students' Satisfaction towards the Participatory Learning Method

In terms of the students' satisfaction towards the participatory learning method, the study reported that the students' satisfaction towards the participatory learning method in the aspect of teaching integration was rated at the level of 4.40, in the aspect of methods of knowledge relaying at the level of 4.37, and in the aspect of teaching expertise at the level of 4.28, respectively.

**Table 3.** Students Satisfaction towards the Participatory, Learning Method

Satisfaction	$\bar{x}$	S.D.	Levels of Satisfaction
Teaching Readiness and preparation	4.20	0.68	High
Methods of knowledge relaying	4.37	0.63	High
Teaching integration	4.40	0.55	High
Teaching expertise	4.28	0.57	High
Overall evaluation	<b>4.31</b>	<b>0.60</b>	High

## 5. Discussion

The participatory learning method had significant effects on students' learning achievements and students' learning behaviors in Electronic Commerce Course. The results were summarized into three parts as follows.

### 5.1 The Comparison of Students' Learning Achievements before and after the Intervention of Participatory Learning Method

The students' learning achievements after the intervention of the participatory learning method in Electronic Commerce Course significantly increased at the level of 20.73, which was higher than those before the intervention, which were rated at the level of 16.67. Based on the T-Test analysis, the students' learning achievements statistically significantly increased at the level of 0.05. This result was attributed to the mind mapping, a case study, and games used theoretically and practically in participatory learning, which helped increase students' average scores in Electronic Commerce Course.

### 5.2 A Comparison of Students' Learning Behaviors before and after the Intervention of Participatory Learning Method

The intervention of the participatory learning method in Electronic Commerce Course had statistically significant effects on students' learning behaviors in the following five aspects: responsibility, self-discipline, tolerance, enthusiasm, and kindness. Based on an analysis, the overall mean scores of the five aspects were rated at the level of 4.46, which was significantly high. Interestingly, the aspect of responsibility was rated the highest at the level of 4.66. This was ascribed to the complete participation in learning and the practical training which made students more attentive to the study and have clear understanding of what are studying. Consequently, they are able to apply their learning behaviors to their daily life learning in different learning settings.

### **5.3 The Students' Satisfaction towards the Participatory Learning Method after Learning**

The students expressed a high satisfaction towards the participatory learning method after learning. The level of students' satisfaction towards the participatory learning method was rated at the level of 4.31 as a whole. According to an analysis for each aspect, the aspect of teaching integration was rated the highest at the level of 4.40. Based on an analysis, the students satisfied different ways of teaching using mind mapping, a case study, and games, which very well motivated them to completely participate in teaching and learning activities and to further their study.

### **6. Conclusions and Suggestions**

This research study showed the effectiveness of using the participatory learning method in teaching Electronic Commerce Course with 30 3<sup>rd</sup> year Business Computer students at Thepsatri Rajabhat University, Takhli Campus. As such, the teaching and learning using the participatory learning method should be used in other courses rather than Electronic Commerce Course to determine students' learning achievements, and also used with other components rather than mind mapping, a case study, and games to determine different learning achievements and learning behaviors in different contexts.

### **7. Acknowledgements**

The researcher would like to express thanks to Research Center, Thepsatri Rajabhat University for a research grant to make this research possible. Also my deep thanks go to the secretary of Thepsatri Rajabhat University, Takhli Campus, Assistant Professor Somsong Kritamanoroth, for all her supports to make this research completed. The researcher also specially thanks Dr. Kriangkrai Yaikhong, who helped proofread my English in this paper.

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